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Tranexamic Acid in the Control of Uterine Atony During Labor

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Background: Death from hemorrhage is still the leading cause of maternal mortality.
Objectives: The aim of this study was to determine the effect of tranexamic acid on the control of uterine atony during labor.
Patients and Methods: A randomized clinical trial was conducted on 90 pregnant women who had uterine atony in Qazvin, during the year 2012. The control group (n = 45) received the routine treatment of uterine atony. The second group (n = 45), in addition to the routine treatments, received 1 gram of tranexamic acid diluted in 100 mL saline of 5% dextrose in water by intravenous infusion within 10 minutes. The amount of blood loss, changes in hemoglobin level, need for surgical intervention and transfusion of blood products and duration of hospitalization were compared between the two groups. Data were analyzed using the chi-square test and t test.
Results: Hemoglobin level was 9.9 ± 5.1 in the control group six hours after hemorrhage while it was 8.10 ± 2.1 in the treatment group (P = 0.004). Hemoglobin level was 5.8 ± 4.1 in the control who did not receive transfusion of blood products during the first 24 hours after hemorrhage, while this level was 7.9 ± 4.1 in the treatment group (P = 0.001). The amount of bleeding significantly declined in the intervention group compared to the control group (P < 0.001). Moreover, the need for transfusion of blood products decreased by a third (P < 0.001) while the number of hospitalization days significantly decreased as well (P < 0.04).
Conclusions: Tranexamic acid can significantly reduce the rate of postpartum hemorrhage.

Keywords: Postpartum Hemorrhage; Tranexamic Acid; Caesarean Section